



Rotary Damper Actuator Modulating 0(2)-10vdc/0(4)-20mA RA8-24VC

Jan.10



CE

RA8-24

Features

- 8, 12 and 24Nm torque to regulate dampers up to approx. 2,0, 4,0 and 6m²
- Manual Over-Ride by Push-button
- Anti-rotation bracket provided for stability
- Adjustable Angle of Rotation, Mechanical Endstops
- Simple direct mounting by Universal Adapter
- Reversible rotation
- Up to 10 Actuators can be connected in parallel
- Power Savings at End Stops

Short Description

By using the mounting clamp the actuators can be direct couple mounted over the damper shaft

The compact size allows for easy installation where space is limited.

Manual control through buttons available in the housing.

Actuator itself has ability of over-loading protect.

It stops automatically without limit switch

A mechanical limit operator is placed inside

Output signal amount 0-100%

Damper Size

When calculating the torque required to operate dampers, it is essential to take into account all the data supplied by the damper manufacturer concerning cross sectional area, design, mounting and air flow conditions.

The recommended damper size are guide values

Usage

RA8-24 modulating damper actuator is a high quality damper actuator for applications in HVAC system

Ordering 0(2)-10Vdc/0(4)-20mA

RA8 24VC	Damper Actuator	8Nm	24Vac/dc
RA8 220VC	Damper Actuator	8Nm	230Vac
RA12 24VC	Damper Actuator	12Nm	24Vac/dc
RA12 220VC	Damper Actuator	12Nm	230Vac
RA24 24VC	Damper Actuator	24Nm	24Vac/dc
RA24 220VC	Damper Actuator	24Nm	230Vac

0(2)-10Vdc/0(4)-20mA aux.sw.

RA8 24VCS2	Damper Actuator	8Nm	24Vac/dc aux.sw
RA8 220VCS2	Damper Actuator	8Nm	230Vac aux.sw
RA12 24VCS2	Damper Actuator	12Nm	24Vac/dc aux.sw
RA12 220VCS2	Damper Actuator	12Nm	230Vac aux.sw
RA24 24VCS2	Damper Actuator	24Nm	24Vac/dc aux.sw
RA24 220VCS2	Damper Actuator	24Nm	230Vac aux.sw

Technical Data

Power Supply	24Vac/dc +/-10% 50/60Hz 230Vac +/-10% 50/60Hz
Power Consumption	
Operating	4,0W(24V) 4,8W(230V)
At the end stops	0.7W(24V) 1,0W(230V)
Wiring size	6,5VA(24V) 7,5VA(230V)
Control Signal(Input)	0(2)-10Vdc eller 0(4)-20mA
Feed back Signal	0(2)-10Vdc
Torque	8, 12, and 24Nm
Aux.switching rating	3(1,5)@230Vac
Protection Class	IP54 with cable glands
Angle Limiting	Max 95 degree
Direction of Rotation	Bidirectional (right/left switch)
Angle of Rotation	-5...+85° wit 5°steps
Rotation angle	0-90°
Shaft Dimension Dia	10-20mm round / 10-16mm square
Running Time	30, 80 resp. 125 sec
Noise Level	< 45dB (A)
Usage Life	Min. 60.000 open-close operations
Position Indication	Mechanical
Ambient Temperature:	-20...+ 50°C
Ambient Humidity:	5...95%rH non-condensing
Weight	1,26 kg
Maintenance	Maintenance free
Connections	Screw terminals
Standards	The actuators meet CE requirements



Damper Actuator

Modulating 0(2)-10Vdc/0(4)1-20mA RA8-24VC

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Technical Overview

The RA8-24 range of actuators require 24Vac/dc supply and can accept either an 0(2)-10Vdc or 0(4)-20mA control signal input.

They are available with 8, 12 or 24Nm torque rating and can have auxiliary switch options fitted.

The direction of rotation can be reversed and the angle of mechanical travel can be limited by up to 30 degree from either end.

Installation

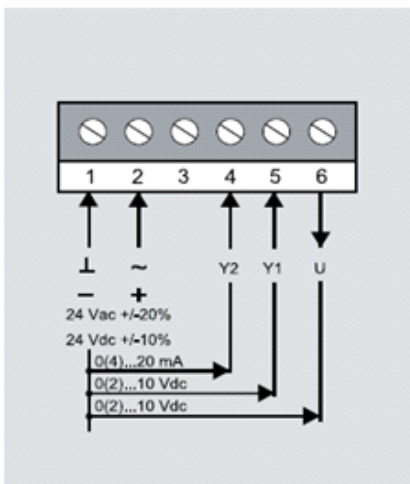
1. Ensure that all power is disconnected before carrying out any work on the RA8-24.
2. Maximum cable is 2,5mm², care must be taken not to over tighten terminals.
3. Attach the actuator to the damper spindle, finger tighten the nut on the V-clamp.
4. Fix the anti-rotation strap to the back of the actuator (bend if required).
5. Move the damper to the closed position

6. Using the manual override push button, turn the clamp until the actuator is in correct position.
7. Tighten the V-clamp.
8. If the damper has no fixed stops of its own, the angle of rotation/ working range can be adjusted mechanically by re-positioning the adapter in 5° steps.

The adapter can be released by simply pressing the clip at the base of the actuator (see page 3).

9. Undo the screw on the cover of the actuator and remove the cover.
10. Fit the cable gland into the back of the actuator
11. Terminate the cores at the terminal block leaving some slack inside the unit.
12. Replace the lid after the electrical connections have been made.
13. Ensure that the voltage is within the specified tolerances.

Electrical Connection 24Vac/dc



Control signal Y1: 0(2)...10 Vdc
Input resistance: Ri 100 kOhm

Control signal Y2: 0(4)...20 mA
Input resistance: Ri 500 Ohm

Feedback signal U: 0(2)...10 Vdc
Load resistance: > 50 kOhm

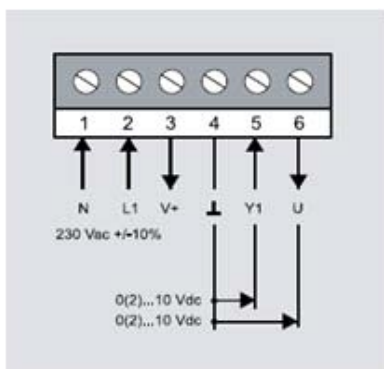
0...10 Vdc
0...20 mA



2...10 Vdc
4...20 mA

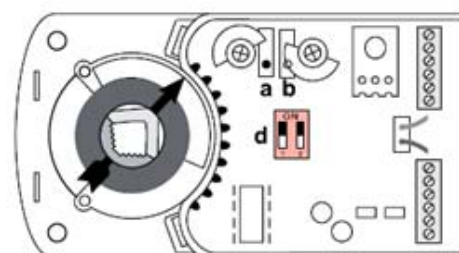


Electrical Connection 230Vac



Direction of rotation setting

Microswitch d

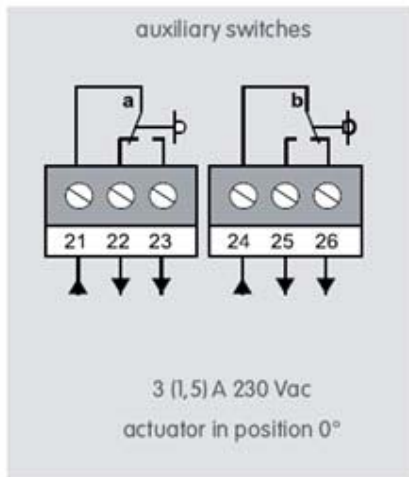




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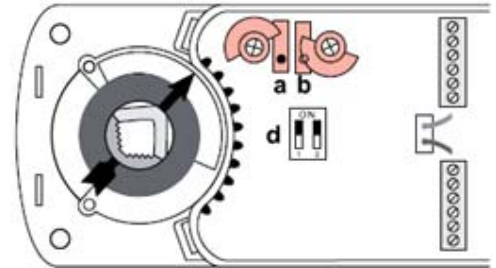
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Auxiliary Switches

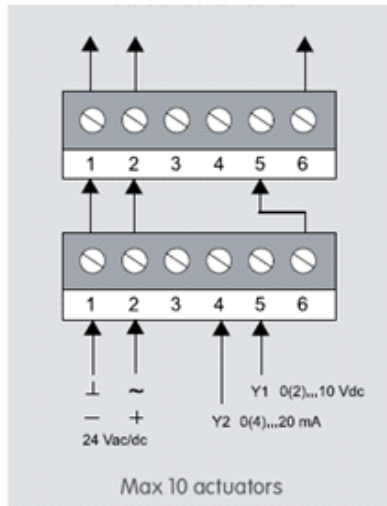


Auxiliary switches setting

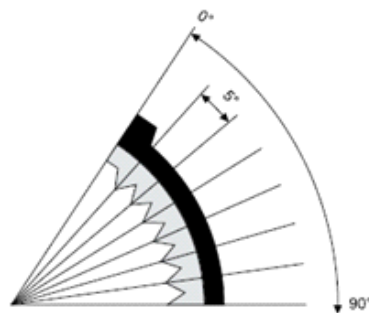
Factory setting:
Switch a at 10°
Switch b at 80°
The switching position can be changed manually.



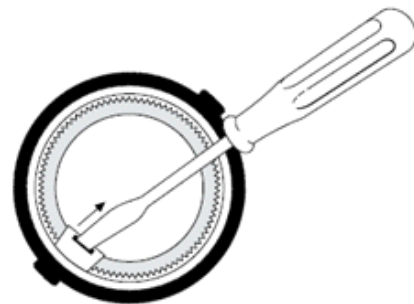
Parallel Connection 24V Actuators



Limitation of Rotation Angle



Adapter release



DIMENSIONS (mm)

